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FOSSIL FUEL SUBSIDY REFORM (FFSR)

TEMPORARY SUPPORT MEASURES AND PHASE-OUT BEST PRACTICES

Note by the Secretariat[1]

Contents

[1] This factual note has been prepared by the Secretariat at the request of the FFSR initiative. It does not represent the official position of the WTO or of the WTO Secretariat.

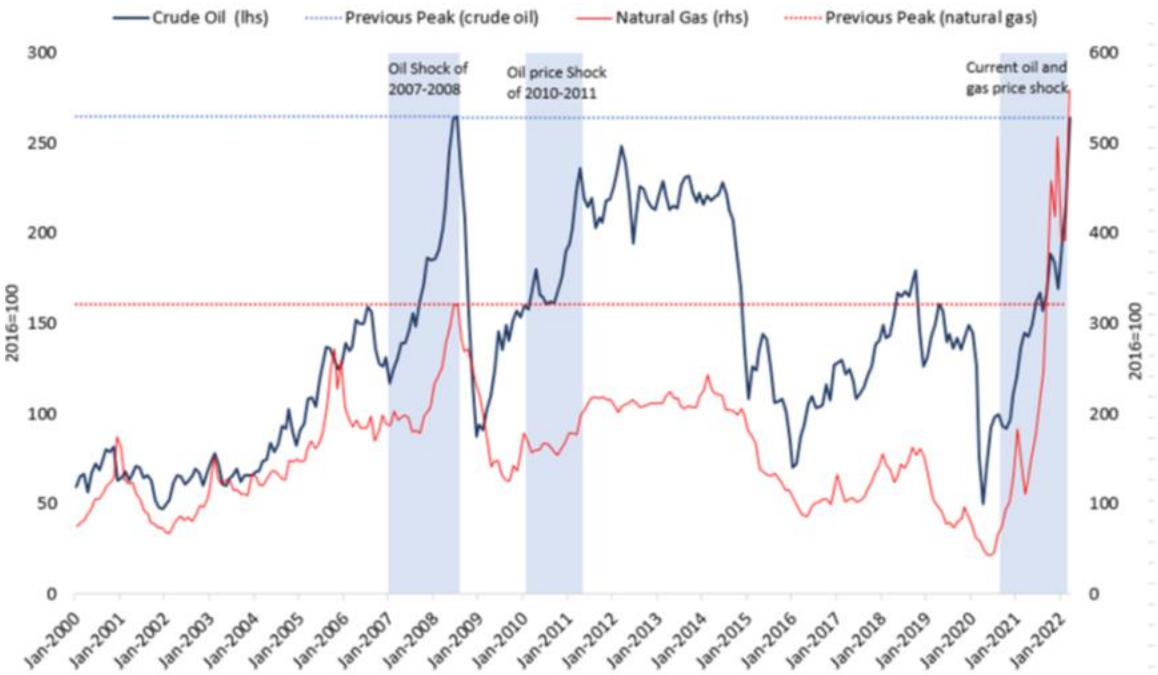
1 INTRODUCTION

1.1. The purpose of the present background paper is to review the available literature on temporary fossil fuel support measures adopted in the context of the current energy crisis. The note further maps key considerations outlined in economic and policy literature on the optimal design of and the rolling back of such measures. In doing so, the note intends to provide background and facilitate discussions under the WTO Fossil Fuel Subsidy Reform (FFSR) initiative on possible best practices on designing and phasing out temporary support measures to avoid them becoming embedded over time.

1.2. In 1973, massive oil price spikes set in motion a process of fuel substitution and electricity generation moved away from oil and towards coal and nuclear. At the same time, industries developed more energy-efficient technologies and improved conservation. These efforts were supported by government policies reducing oil usage and increasing energy awareness, accompanied by a move towards more fuel-efficient vehicles in transport. It was a period of high prices and inflation but also a period for energy innovation and investment in renewables. For some countries, the history of fossil fuel subsidization often goes back to the 1970s oil crisis. While governments hoped that the fuel-price regimes would be gradually liberalized, many of these measures have remained in place.[2]

1.3. More recently, in 2021, international fossil fuel prices increased sharply as global demand recovered from the COVID-19 pandemic and soared further after the war in Ukraine in February 2022. The run-up in prices has been large from a historical perspective, particularly for natural gas, which saw a five-fold increase in prices between early 2021 and mid-2022.[3] It also triggered a major reversal of the previous declining trend in fossil fuel subsidies.

Figure 1: International Oil and Gas Prices (Index 2016=100; January 2000–March 2022)



Source: IMF 2022.

1.4. The real income reduction from higher energy prices has been more pronounced for poorer households since the share of energy in the consumption basket is lower, on average, for higher income households. While the composition of the energy basket differs by product and across

[2] World Bank Live 2022, Energy Price Shocks: Lessons from the Past and Way Forward.
[3] IMF 2022, Surging Energy Prices in Europe.

regions, a sharp increase in prices can impact low-income households because of second-round price effects and a more limited ability to cope with shocks.[4]

1.5. This large price shock has reduced the real income of fuel-importing economies and led to a sharp increase in inflation. Governments have responded with a broad range of temporary relief measures to ease the burden of higher energy costs on households and firms. With growing fiscal burden of support, the designing of support policies in a cost-effective manner and the timely phase out of temporary measures has been a key challenge for policymakers.[5]

2 TEMPORARY SUPPORT MEASURES INTRODUCED IN RESPONSE TO ENERGY CRISES

2.1 Lessons from previous energy shocks

2.1. The current energy crisis is not the first one in history. Lessons on phasing out temporary support measures can be drawn from previous energy price shocks, like the 1973 oil crisis. During that crisis, measures were implemented to address the underlying demand and supply imbalance. Demand-side measures included fiscal incentives to improve energy efficiency in vehicles and housing. There was a shift of balance in the automotive industry toward the more fuel-efficient models designed in East Asia and Europe. The quest for better fuel economy, lower fuel bills and so-called energy independence brought diesel and the ethanol revolution in Brazil, and the start of hybrids and electric vehicles. It also brought a wave of technology innovations that continue to deliver increased efficiency, including turbocharging, lightweight materials, front-wheel drive, eight-speed transmissions, and direct fuel injection.[6]

2.2. While present-day policy responses have tended to focus on adjustments to fuel subsidies and taxes to mitigate the effects on consumer prices, policy responses to previous oil price shocks were focused on energy security and energy efficiency, including by establishing institutions, such as the International Energy Agency in 1974 which safeguards oil supplies and promotes common policy making. Key policy decisions included the requirement to create national oil reserves equal to 60 days of imports (later expanded to 90 days) and a ban on building new oil-powered electricity plants with a directive to switch to coal enacted in 1977.[7] Furthermore, impetus currently is equally placed switching away from fossil fuel sources of energy.

2.3. Supply-side measures included a mandate to sharply increase the use of biofuels; establishing renewable fuel standards; providing energy-related tax incentives for fossil fuels, nuclear, and renewable energy sources; and providing loan guarantees for zero-carbon technologies.[8] Measures to promote energy efficiency and changes in consumer preferences have proven to be instrumental in significantly reducing oil demand after the 1970s oil shocks. Government programmes in many countries invested funds in alternative sources of energy, such as solar, wind, and geothermal. For instance, Denmark became a pioneer in developing commercial wind power during the 1970s. To encourage investment, families were offered a tax exemption for generating their own electricity locally with most purchasing shares in cooperative-owned community wind turbines.[9]

2.4. On the other hand, policies that encouraged the use of coal for electricity generation and price controls led to environmental problems and market distortions, respectively. For example, the Washington Times reported on the effects of measures taken to lower fuel prices and ration fuel as the artificially depressed fuel prices and the rationing programme imposed in the US during the oil crisis of 1973 – which stayed in place in various iterations through 1980 – and brought about lines at gas stations and an artificial shortage of gas. Consumers sat in lines while gas stations had to stay open a few hours a day only to empty out their tanks.[10]

[4] IMF 2022, Fiscal Policy for Mitigating Social Impact of High Energy and Food Prices.
[5] IMF 2022, Surging Energy Prices in Europe.
[6] Resilience, From Oil Crisis to Energy Revolution.
[7] World Bank 2022, Global Economic Prospects.
[8] World Bank 2022, Global Economic Prospects.
[9] Resilience 2019, From Oil Crisis to Energy Revolution.
[10] Washington Times 2006, How gas price controls sparked '70s shortages.

2.2 Types of support measures

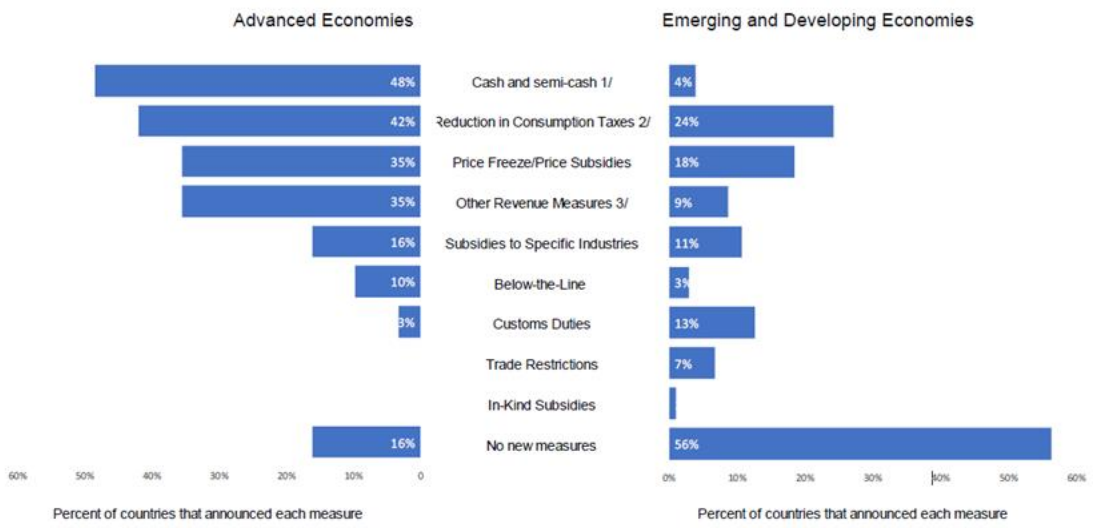
2.5. Several international organizations, including the IMF and the OECD, have done work on classifying temporary support measures in response to energy crises, including those adopted in the period 2021-2022. Generally, they highlight **a key distinction between income support measures** – i.e. transfers to households and businesses – **and price support measures**, which seek to reduce energy prices paid by consumers. Income support can be delivered through a range of means, including transfers or vouchers to households and firms.

2.6. A 2022 OECD analysis across 89 jurisdictions shows that "**[g]overnments' responses to the energy crisis have focused largely on price control – which tends to support rather than curb demand**".[11] The OECD found that support measures account for 34% of the total value of support provided through policies covered by the database. Most of these, 73%, have been targeted. By contrast, price support – 66% of the amount of total support provided – is in large part non-targeted (94%). Initially in 2021, governments rolled out mainly price support measures. Some governments then gradually shifted to income support measures. The war in Ukraine provoked further increases in energy prices, which caused governments to again turn to price-based polices, reversing the trend of a rising share of income-based policies. More than two thirds of the countries analysed by the OECD have combined price and income support policies. These patterns generally hold in both OECD and non-OECD countries covered by the analysis, although non-OECD countries tend to rely more on price support measures.[12]

2.7. A March 2022 IMF survey of 31 advanced economies and 103 emerging and developing economies confirms that "**[m]ost countries surveyed announced at least one measure since the beginning of [2022] (26 out of 31 advanced economies and 45 out of 103 emerging and developing economies)**".[13] In advanced economies, cash and semi-cash transfers (including vouchers and utility bill discounts) were announced by the greatest number of countries (in about half of all countries), while most other measures aimed at lowering prices including reductions in value-added tax (VAT) and excise taxes (Figure 2). A cap on fuel prices was announced in Slovenia, and France provided subsidies to distributors to reduce gasoline prices. Estonia, Luxembourg, and the Slovak Republic announced measures to reduce electricity prices. In emerging and developing economies, the most frequently announced measures were reductions in VAT and excises. This included Poland and Turkey, which each announced a reduction in VAT rates on energy, and Côte d'Ivoire, Serbia, and Thailand, which each announced a temporary reduction or exemption of excise taxes. Some emerging and developing economies implemented a temporary reduction or suspension of import duties (for example, Brazil, Iraq, Turkey). Finally, about 55% of all announced measures intended to mitigate the impact of higher energy prices.[14]

[11] OECD 2022, Policy responses to rising energy prices.
[12] OECD 2022, Policy responses to rising energy prices.
[13] IMF 2022, Fiscal Policy for Mitigating Social Impact of High Energy and Food Prices.
[14] IMF 2022, Fiscal Policy for Mitigating Social Impact of High Energy and Food Prices.

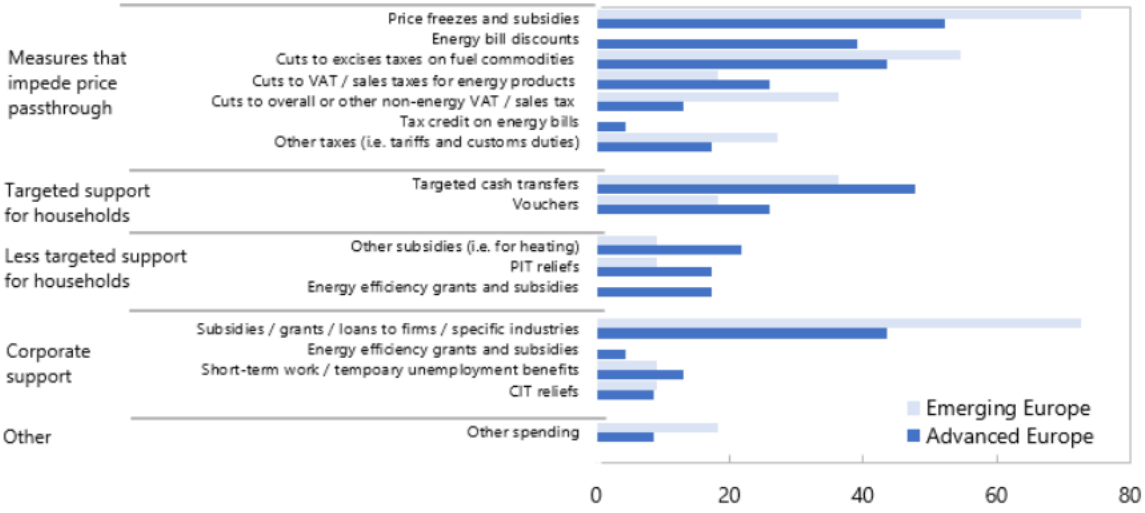
Figure 2: 2022 Measures in Response to High Energy Prices



Source: IMF 2022.

2.8. Another 2022 IMF paper reports that **European countries** "**have implemented a wide range of support measures aiming to cushion the effects of higher energy prices**".[15] Most measures have been announced as temporary, though in some cases they have been extended and/or expanded over time. While some measures preserve the price signal, most are in the form of tax or fee reductions or outright natural gas and electricity price controls. The estimated fiscal cost of the measures varies considerably across European countries. Emerging market economies have typically spent more than advanced ones while targeted transfers to households account for a small fraction of the overall fiscal costs in most countries.[16]

Figure 3: Policy Adoption by Type (% of countries adopting each type of measure)



Source: IMF 2022.

2.9. Similarly, the UNDP points out that "**[i]ncreasing energy prices have become a considerable challenge to many developing countries globally**: on one hand to manage the fiscal and balance of payments repercussions and on the other hand manage the implications on the poor and vulnerable."[17] Responding mainly to the latter concern, many developing countries have

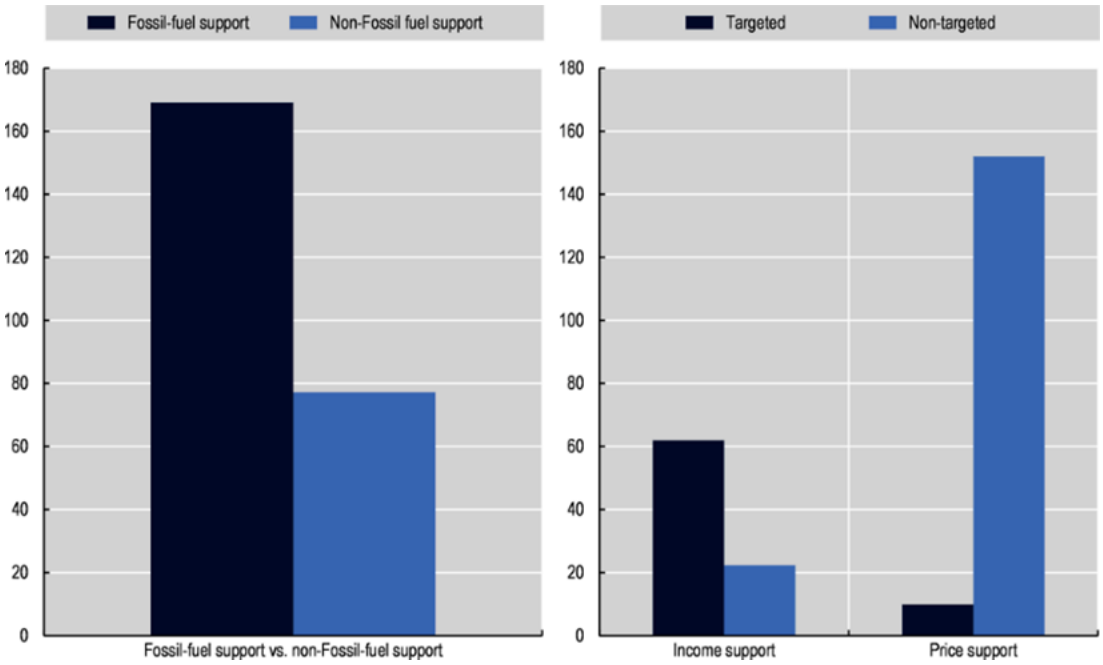
[15] IMF 2022, Surging Energy Prices in Europe.
[16] IMF 2022, Surging Energy Prices in Europe.
[17] UNDP 2022, Energy Pricing for Developing Countries: High-Level Policy Recommendations.

implemented energy subsidies and in most instances blanket subsidies. The UNDP cautions that such policies have "aggravated fiscal and balance of payment imbalances accentuating fragility of countries" and have also "served to distance climate goals and energy transition plans".[18]

2.3 Fiscal impacts of recent emergency support measures

2.10. OECD data shows that the aggregate fiscal cost of measures provided since October 2021 and ending in December 2022 – i.e. summing the fiscal cost of measures for which an estimate is available – amounts to a total of USD 246 billion of which USD 169 billion has come in the form of support for fossil fuels.[19]

Figure 4: Cost of government responses to the energy crisis, October 2021 to December 2022 (USD billions)



Source: OECD 2022.

2.11. The IMF reports that, on average, the **pass-through** for main fuel products (diesel) has been the highest in advanced economies and the lowest in emerging and developing economies. The lower pass-through in emerging and developing economies is explained by the prevalence of price subsidies, especially in the Middle East, North Africa, and sub-Saharan Africa. Even advanced economies with liberalized prices however have limited the increase in retail prices. The IMF points out that "**[t]he lower pass-through implies that the current crisis of rising energy prices will have adverse fiscal implications** in all regions with the largest impact expected in the Middle East, North Africa, and sub-Saharan Africa. The limited pass-through will put even more pressure on low-income economies with limited fiscal space."[20]

2.12. The IMF also highlights that, in some European countries, the fiscal costs of measures introduced in response to energy price increases since the summer of 2021 are estimated to exceed 1.5% of GDP by end-2022, excluding loan guarantees for companies for which the cost is difficult to estimate *ex ante*. Most of these costs stem from price controls and subsidies; the annual cost of targeted measures implemented so far, including cash transfers and vouchers, is estimated to be less than 0.5% of GDP in most countries.[21]

[18] UNDP 2022, Energy Pricing for Developing Countries: High-Level Policy Recommendations.
[19] OECD 2022, Policy responses to rising energy prices.
[20] IMF 2022, Fiscal Policy for Mitigating Social Impact of High Energy and Food Prices.
[21] IMF 2022, Surging Energy Prices in Europe. The survey does not quantify fiscal costs for several countries and for a few other countries complete estimates of the costs were not available; moreover, the cost

2.13. The UNDP highlights that "[r]ising energy prices have had a cascading effect on the entire supply chains leading to high inflationary environment globally" but especially in developing countries. This has been met by policy responses to deflate economies, which have seen increases in global interest rates that "in turn has compounded economic woes in many developing countries already reeling under high energy prices".[22] Indeed, many countries in Asia Pacific, South America and in Africa are currently undergoing economic crisis while several others remain on the fringe. According to UNDP, these economic woes are partly attributed to policy of heavy and untargeted subsidization that causes significant fiscal and external strain, constraining governments ability to protect the most vulnerable and fight climate change. The UNDP concludes that "[e]ven among stronger economies, increased subsidies are becoming a major fiscal and external burden – with significant opportunity cost: money that could be used for strengthening social protection, provide impactful economic stimulus and countering climate change."[23]

3 LESSONS LEARNED FOR DESIGNING TEMPORARY SUPPORT MEASURES

3.1. The following section outlines mechanisms developed by governments, and suggestions from international fora and academia in designing temporary support measures as well as on effective approaches for rolling back on such measures, so they do not become embedded. The section should be seen as a broad and non-exhaustive inventory of considerations to serve as a basis for discussions.

3.1 General considerations

- Governments' responses to recent rises in energy commodity prices have varied based on their energy mix and end-users' vulnerability to price shocks. Measures involve several delivery channels:
    - **Energy prices**: wholesale/retail price ceilings or caps, price freezes, limits on pass-through.
    - **Energy bills**: bill discounts, bill deferrals, instalments, moratorium on utility disconnections for non-payment.
    - **Taxes**: VAT, fuel, excise, or carbon tax reductions for electricity or fuels, full tax holidays or exemptions, corporate tax deferrals.
    - **Social protection**: cash transfers to households, expanded benefit schemes.
    - **Support to sector companies**: fiscal transfers to oil and gas companies, utilities (electricity and gas suppliers), interest-free loans, guarantees, relaxed state-aid rules for firms.
    - **Support for energy consuming enterprises**: fiscal transfers to firms, such as transport operators, farmers, textiles, fertilizer, cement; debt relief, restructuring.[24]

- Approaches to delivering support differ in their administrative ease, effectiveness and alignment with other policy objectives. Government support needs to strike a balance between multiple objectives, including effectiveness, budgetary and implementation costs, the need to focus on the strongest needs, and to ensure synergies with longer-term climate change and energy security objectives.[25]

- In general terms, **levers to design fiscally sustainable response measures** include: (i) affordability (the extent to which the instrument impacts fiscal stability); (ii) predictability and control of cost (the ability to set upper limits for the cost of a program and reasonably predict costs); (iii) targeting (limiting benefits to specific businesses, population groups, or activities); (iv) abuse resistance (the ease with which abuse by eligible beneficiaries and other parties involved with the measure can be controlled); and (v) reversibility (the ease with which the response can be withdrawn when appropriate, without causing economic and behavioural distortions).[26]

of loan guarantees is excluded. Thus, the estimates represent lower bounds of the costs of support measures across countries.

[22] UNDP 2022, Energy Pricing for Developing Countries: High-Level Policy Recommendations.
[23] UNDP 2022, Energy Pricing for Developing Countries: High-Level Policy Recommendations.
[24] World Bank 2022, Amid energy price shocks, five lessons to remember on energy subsidies.
[25] OECD 2022, Why governments should target support amidst high energy prices.
[26] World Bank 2022, Fiscal Implications of the Deteriorating Global Economic Environment for Emerging Market and Developing Economies.

- Policy responses must be based on **an assessment of fiscal and welfare trade-offs**.[27] The appropriate policy response must be taken in light of country-specific circumstances, but some general considerations apply in all cases. The **strength of social safety nets** is one key consideration in developing policy responses. Strong social safety nets can increase households' resilience to the shock, protecting them from falling (deeper) into poverty. Countries with strong social safety nets are generally able to protect poor and vulnerable households, while those with weaker social safety nets would typically face difficulties in reaching vulnerable households in a timely manner.

- In the presence of weaker social protection systems, it may not be possible to channel support to the most affected households by temporarily scaling up existing benefits. In such cases, focusing on a priority can help avoid administrative complexity and difficulties in targeting. For many developing economies, this may be **food security**.[28]

- Other general considerations include the availability of **fiscal space**, and **threats to food and energy insecurity**.[29]

- Policy responses must also be **cost-effective**, which favours providing **time-bound and targeted** (rather than broad-based) support.[30] General measures aiming to offset the loss of real income have important budgetary implications. A focus on protecting the poor and vulnerable households which tend to spend a greater share of their incomes on energy limits this overall cost and targets assistance to those who have more limited means to cope with a rapid increase in the cost of living. For the same reason, it is also important to have a clear rationale and duration behind support extended to firms.

3.2 Moving away from price support measures

- Policy responses should generally **allow domestic prices to follow international prices (pass-though)**.[31] Temporary measures that suppress price increases can be a response to a short-lived shock in countries with ample fiscal space. However, studies show that these measures are an inefficient tool to protect the economically vulnerable, are fiscally costly, and they mute the demand adjustment to the price shock (including energy-conserving behaviour and energy efficiency investments). Price support measures for the most part are the main driver behind the increase in fossil fuel subsidies. When end-user energy (e.g. electricity, natural gas, and gasoline) prices are capped at below cost recovery, they can also cause large losses further upstream in the energy supply chain thereby discouraging new infrastructure investments and ultimately exacerbating supply shortages.[32]

- Similar considerations apply to **energy tax reductions**. Whether targeted at excise duties or value-added taxes, they also seek to reduce the effective price that consumers pay.[33] Like price controls, these policies are relatively quick and simple to implement, communicate and reach individuals. Similarly, they also weaken price signals and the incentives to reduce consumption levels. Reductions in tax rates or tax exemptions are also typically difficult to target. Moreover, once a tax rate is reduced, studies have shown that political economy constraints make it difficult to reverse, even if the rate reduction is announced as temporary.[34]

- Some countries have come up with more **flexible approaches** with the goal to reduce demand for electricity and redistribute the energy sector's surplus revenues and profits. For instance, instead of fixing the price of electricity on the market, governments have introduced a mandatory cap on market revenues of electricity producers. Another measure taken was to set a mandatory temporary solidarity contribution on the surplus profits of

[27] IMF 2022, Fiscal Policy for Mitigating Social Impact of High Energy and Food Prices.
[28] World Bank 2022, Fiscal Implications of the Deteriorating Global Economic Environment for Emerging Market and Developing Economies.
[29] IMF 2022, Fiscal Policy for Mitigating Social Impact of High Energy and Food Prices.
[30] IMF 2022, Surging Energy Prices in Europe.
[31] OECD 2022, Policy responses to rising energy prices.
[32] World Bank 2020, Price Controls: Good Intentions, Bad Outcomes.
[33] OECD 2022, Why governments should target support amidst high energy prices.
[34] World Bank 2022, Fiscal Implications of the Deteriorating Global Economic Environment for Emerging Market and Developing Economies.

businesses in the petroleum, natural gas, coal, and refinery sectors, calculated on taxable profits.[35]

3.3 Focusing on targeted and income-based support

- IMF reporting advocates a policy focus on **providing vulnerable households with income support** without distorting the marginal price they pay for energy.[36] This helps support those that need it the most and helps contain fiscal costs. In contrast to price support, income support measures, such as temporary means-tested transfers, do not mute price signals, thereby encouraging energy savings and fuel switching, resulting in lower GHG emissions.[37]

- There is scope for targeting of support to use **criteria beyond income** to include other factors that determine the degree of a household's financial vulnerability, e.g. housing location and quality, and household composition.[38]

- **Innovations in transfer mechanisms** may be needed to ensure that groups that are most vulnerable to the energy price shock are reached. This is because countries with weak social benefit systems, e.g. due to high informality or lack of institutional capacity, may find targeting challenging. Even in countries where social benefits systems are more sophisticated, effective targeting is not simple.[39] Digital delivery methods for transfers may be required, to bank accounts and via mobile applications, for example, especially in countries with high informality rates.[40]

- Implementing subsidies to vulnerable consumers is assisted by **robust information systems** at the level of national social security, linked to databases with information on individual energy consumption, as well as the broader socio-economic context. Efforts focused on efficient targeting can help create consumer databases that can be instrumental in implementing future fiscal measures to facilitate the social equity and fairness of the energy transition.[41]

- **Taxing the windfall profits** of some energy producers is an option in some cases, but careful design is key to avoiding unintended consequences. Some countries have introduced, or are considering, taxes on the windfall profits of extractive industries and/or some other energy suppliers to help offset the costs of relief policies.[42]

- Even as support is extended to vulnerable households and firms, the IMF recommends that **the broader fiscal stance should remain consistent with macroeconomic policy objectives**. This means that, in countries where inflation is running well above target, fiscal policy changes should not add to aggregate demand to avoid exacerbating price pressures.[43]

- **Targeting is also seen as important when providing support to firms**. A logical focus would be on companies that were previously solvent but are suffering from liquidity and solvency problems deriving directly from the crisis. However, the need for firms to adapt over time, suggests that support should be time-limited even when energy costs remain high. More generally, there is a need for government support to firms to be transparent, proportionate, and non-discriminatory.[44]

- **Income policies** maintain the incentive of the high energy prices to reduce energy demand. They can also be more easily targeted to vulnerable groups, and thereby provide more relief

[35] See e.g. European Union's mandatory cap on energy market revenues and mandatory solidarity contribution.
[36] IMF 2022, Surging Energy Prices in Europe.
[37] OECD 2022, Why governments should target support amidst high energy prices.
[38] OECD 2022, Why governments should target support amidst high energy prices.
[39] OECD 2022, Why governments should target support amidst high energy prices.
[40] OECD 2022, Policy responses to rising energy prices.
[41] WEF 2023, Why the response to the energy crisis must embrace an accelerated and balanced transition.
[42] IMF 2022, Surging Energy Prices in Europe.
[43] IMF 2022, Surging Energy Prices in Europe.
[44] OECD 2022, Why governments should target support amidst high energy prices.

for a given amount than price policies (may depend on design features). The additional administrative complexity in targeting income policies can be reduced if the measure can be linked to other means-tested benefits. Income policies may also be easier to remove when energy prices stabilize to avoid those policies outliving their motivation.[45]

- Some countries have chosen to impose **additional charges** on electricity consumers with the aim to stabilize electricity tariffs which are progressively classified according to consumption tranches. Thus, customers with consumption of less than certain kW/h per month could be exempt from such charges, while customers exceeding certain consumption would bear most of the collection.[46]

3.4 Embedding time-limits, reviews, and sunset clauses

- Lessons from international experience strongly suggest that any subsidy measure to keep fuels, electricity or gas affordable in response to a crisis should be in particular **time-bound** with clear end-dates and, if need be, extension mechanisms.[47]

- Introducing regular **review clauses** in policies is another mechanism used by governments to ensure measures remain temporary.[48]

- The insertion of **sunset clauses** can also set an explicit expiration date and prevent temporary support from operating indefinitely. It also gives stakeholders a clear expectation about when a subsidy would end, reducing the risk of dependency and lock-in.[49]

- **Built-in transition mechanisms**, such as gradual increases in electricity prices to adapt to international prices, could be useful to ensure smooth and progressive adaptation.[50]

3.5 Encouraging energy efficiency

- If the goal is to protect consumers from price shocks, it is important to recognize the potential of energy efficiency and conservation as the **"first fuel"** and to ensure that short-term measures do not disincentivize energy efficiency and conservation.[51]

- Experience shows that countries that placed an emphasis on energy efficiency over the last few decades now see lower consumer costs, lower fuel imports, and lower emissions. Key measures have included **upgrading the efficiency of homes** and other buildings, as well as **encouraging people** to take action by reducing the temperature of their heating thermostat.[52]

- Citizens' participation has long been a challenge, but the pandemic lockdowns have shown that **creative communication relaying trustworthy and consistent information** can lead to strong engagement. Information and campaigns flanked by incentives linked to switching to energy-efficient equipment or purchasing digital enablers measuring and optimizing domestic consumption have been utilized.[53]

[45] Centre for Economic Policy Research 2022, Targeted income support is the most social and climate-friendly measure for mitigating the impact of high energy prices.
[46] See e.g. Chilean government's tariff stabilization fund.
[47] World Bank 2022, Amid energy price shocks, five lessons to remember on energy subsidies. See e.g. European Union's mandatory cap on energy market revenues.
[48] See e.g. New Zealand government's transport temporary relief package.
[49] Sovacool 2017, Reviewing, Reforming, and Rethinking Global Energy Subsidies: Towards a Political Economy Research Agenda.
[50] See e.g. Chilean government's tariff stabilization system.
[51] World Bank 2022, Amid energy price shocks, five lessons to remember on energy subsidies.
[52] IEA 2022, Accelerating energy efficiency: What governments can do now to deliver energy savings.
[53] WEF 2023, Why the response to the energy crisis must embrace an accelerated and balanced transition.

- International agencies have also outlined **steps that businesses can take** to use energy more efficiently and wisely, making them more resilient and secure – both in the short and in the long term.[54]

3.6 Accelerating the green transition

- At the same time as phasing out interventions that blunt price signals and dampen incentives to reduce fossil-based energy use and building capacity to better address household vulnerabilities to price shocks, there is a place for policy measures aimed at **accelerating the development of alternative sources of energy**. This can be done, for instance, by supporting energy efficiency improvements and ensuring that networks and infrastructure are adapted to zero-carbon technologies. Over time, investing in capacities for energy users to adapt their energy consumption and shift to alternative fuels is expected to be a common priority for climate, energy, and social policies.[55]

- **Accelerating the green transition** is seen as the best way to limit vulnerability to spikes in fossil fuel prices and enhance energy security, with a focus on developing alternative energy sources and transportation modes.[56] This also entails a **scaling up of investment in renewable energy development**, while ensuring the availability of a low-emission and diversified fuel and energy trade mix. This would help ensure a balance of affordability, security and sustainability on the supply side and ultimately help address current vulnerabilities.[57]

- **Other ways to ensure** that temporary support to the energy sector does not act counter to climate objectives include measures that give temporary relief from peak prices could transition to the introduction of carbon taxes to ensure carbon prices remain at a level that is consistent with climate mitigation objectives in the medium- to long-term.[58]

3.7 Phase-out considerations

- When phasing out national fiscal measures introduced to protect households and firms from an energy price shock, there is a case for **starting with the least targeted ones**. If an extension of support measures was considered necessary because of renewed energy pressures, better targeting of these measures and refraining from generalized support should also be considered.[59]

- The IMF also points to the risks if a substantial part of the increase in energy costs is likely to persist and argues that **governments would need to phase out costly measures and identify sustainable revenue sources** (e.g. new or increased carbon taxes that could come into effect when international energy commodity prices fall) **to finance targeted support**. More generally, the IMF notes the benefits of policies to counter the effects of high energy prices have to be weighed against the economic cost of financing such policies by raising additional revenues or cutting other expenditures.[60]

3.8 Fostering international cooperation

- There is a case for economic support to not only be targeted and income-based, but also **coordinated across countries** to discourage arbitrage.[61]

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[54] IEA 2022, Coping with the Crisis: Increasing Resilience in Small Businesses in Europe through Energy Efficiency.
[55] OECD 2022, Why governments should target support amidst high energy prices.
[56] IMF 2022, Fiscal Policy for Mitigating Social Impact of High Energy and Food Prices.
[57] WEF 2023, Why the response to the energy crisis must embrace an accelerated and balanced transition.
[58] World Bank 2022, Fiscal Implications of the Deteriorating Global Economic Environment for Emerging Market and Developing Economies.
[59] European Commission 2023, Fiscal policy guidance for 2024.
[60] IMF 2022, Surging Energy Prices in Europe.
[61] WEF 2023, Why the response to the energy crisis must embrace an accelerated and balanced transition.

- Solutions and strategies to address **energy security** need to consider the implications on energy transition and help hedge against its disruptions. This argues for more coordination between countries and between the public and private sectors, as well as more policy coordination, for example, to strengthen and unify energy grids to deal with the uneven distribution of renewable resources.[62]

- The World Bank has pointed out that many developing countries, and most importantly low-income and fragile countries, may need support from the international community to mitigate adverse impacts on their economies, households, and businesses. It has referred to engagement in supporting countries to address these challenges, potentially in the form of scaled-up finance, technical assistance, and analytic and advisory activities to support green, resilient, and inclusive development.[63]

- Voluntary, bottom-up, cross-country **peer reviews** of governmental support have been shown to lead to improvements in valuation and legitimacy.

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[62] WEF 2023, Why the response to the energy crisis must embrace an accelerated and balanced transition.

[63] World Bank 2022, Fiscal Implications of the Deteriorating Global Economic Environment for Emerging Market and Developing Economies.